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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/897,732	07/03/2001	Jae-Hong Kim	Q63316	8188

7590   02/15/2006

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EXAMINER
KIM, KEVIN

ART UNIT	PAPER NUMBER
2638	

DATE MAILED: 02/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>27 September 2005</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   Claim 3 is objected to because of the following informalities: "the input data" on

line 3 should be changed to -- the input data which has not been decoded by the

preliminary decoding part --. Appropriate correction is required.

2.   . The text of those sections of Title 35, U.S. Code not included in this action can be found

in a prior Office action.

3.   Claims 6-9 are rejected under 35 U.S.C. 1 12, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

In claim 6, "a frame length indicating parameter" and "a frame length parameter" in sub-

step (a41) appears to have exactly the same purpose (i.e., indicating the possible frame length).

It is not clear how to distinguish between these two phrases.

Claim Rejections - 35 USC § 102

4.   Claims 1, 4 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Nara

(EP 0817440, previously cited).

Claims 1 and 10.

Nara teaches an apparatus for decoding data of unknown frame length, comprising;

a preliminary decoding part for decoding input data into preliminarily decoded data

according to each of the possible frame lengths (102 in Fig. 4; also see step (a) in

claim 1, note that different data rate corresponds to different frame length, see Fig. 1), and

a decoded data outputting part for selectively outputting data that correspond to a

frame length detected from the input data which has not been decoded by the preliminary

decoding part, from among the preliminarily decoded data which are decoded by the preliminary

decoding part according to each of the possible frame lengths (108, 1Q5 in Fig. 4, note that 108

receives the input data which has not been decoded by the preliminary decoding part; steps (b)-

(d) in claim 1, page 7, lines 23-25).

Claim 4.

Claim 4 is the corresponding method claim of claim 1 and is

therefore rejected for the same reason above.

Claim Rejections - 35 USC § 103

5.   Claims 2, 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nara

(EP 0817440, previously cited), as applied to claim 1 above, in view of the admitted prior art.

Claim 2.

Nara teaches the claimed invention including using a Viterbi decoding means in the

claimed preliminary decoding part (102 in Fig. 4), as explained above, but does not particularly

show the Viterbi decoder includes a branch metrics calculating part, an ACS (Adding,

Calculating & Selecting) part, a path metrics storing part, a trace-backed data storing part, and a

trace-back controlling part.   However, it is well known that all five parts are essential parts to

construct a Viterbi decoding means.   The admitted prior art described in the background section

(pages 1 and 2 of the specification) and Fig. 1 (see elements 210, 230, 250, 270 and 290) of the

present application shows all five parts. Therefore, it would have been obvious to a person of

ordinary skill in the art at the time the invention was made to construct the Viterbi decoding

means of Nara as claimed, since all five parts are essential elements and explicitly required for a

Viterbi decoder.

Note that the trace-back controlling part would inherently control the trace-backed

storing part according to each of the possible frame lengths since the Viterbi decoder in the

system of Nara decodes the data for each possible frame length.

Claim 3.

Nara further teaches that the decoded data outputting part comprises;

a frame length determining part for detecting the frame length based on the input

data which has not been decoded by the preliminary decoding part (104, 105, 106, 107,

108 in Fig. 4., page 7, lines 3-19),

an output storing part for storing the preliminarily decoded data output from the

trace-backed data storing part (105 in Fig. 4, 105 receives the decodes signals 125-128 from the

Viterbi decoder 102., also see page 7, line 24), and

an output controlling part for controlling the output storing part so as to output decoded

data corresponding to the detected frame Length (105 in Fig. 4, page 7, lines 24-25).

Claim 5.

Claim 5 is the corresponding method claim of claim 2 and is therefore rejected for the same reason applied to claim 2.
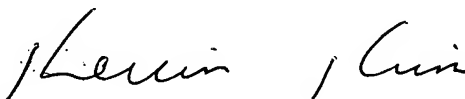
Allowable Subject Matter

6.   Claims 6-9 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Y. Kim whose telephone number is 571-272-3039. The examiner can normally be reached on 8AM --5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on 571-272-3078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Kevin / Kim

KEVIN KIM
PATENT EXAMINER